

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended) A method of treating a neurodegenerative immunological disorder, comprising administering to a mammal a therapeutically effective amount of a soluble BCMA polypeptide, ~~an antibody against a BCMA ligand~~, or an antibody against BCMA, thereby treating the disorder.
2. The method of claim 1, wherein the disorder is multiple sclerosis.
3. (Currently Amended) A method of treating demyelination in a mammal, comprising administering a therapeutically effective amount of a soluble BCMA polypeptide, ~~an antibody against a BCMA ligand~~, or an antibody against BCMA, thereby treating demyelination, wherein the mammal has or is at risk for developing multiple sclerosis.
4. (Currently Amended) A method of treating CNS inflammation in a mammal, comprising administering a therapeutically effective amount of a soluble BCMA polypeptide, ~~an antibody against a BCMA ligand~~, or an antibody against BCMA, thereby treating CNS inflammation, wherein the mammal has or is at risk for developing multiple sclerosis.
5. (Currently Amended) A method of reducing a CNS-specific autoantibody titer in a mammal, comprising administering a therapeutically effective amount of a soluble BCMA polypeptide, ~~an antibody against a BCMA ligand~~, or an antibody against BCMA, thereby reducing the CNS-specific autoantibody titer wherein the mammal has or is at risk for developing multiple sclerosis.

6. The method as in any one of claims 1-5, wherein the mammal has or is at risk for diabetes.
7. The method as in any one of claims 1-5, wherein the mammal is human.
8. (Currently Amended) The method as in any one of claims 1-5, wherein the soluble BCMA polypeptide comprises ~~a polypeptide comprising~~ a ligand-binding domain of SEQ ID NO:1.
9. (Currently Amended) The method of claim 8, wherein the soluble BCMA polypeptide comprises an amino acid sequence substantially identical to amino acids 1-51 of SEQ ID NO:1.
10. (Currently Amended) The method of claim 8, wherein the soluble BCMA polypeptide comprises amino acids 8-41 of SEQ ID NO:1.
11. (Currently Amended) The method of claim 8, wherein the soluble BCMA polypeptide comprises amino acids 1-51 of SEQ ID NO:1.
12. (Currently Amended) The method of claim 8, wherein the soluble BCMA polypeptide comprises the amino acid sequence as in SEQ ID NO:3.
13. (Currently Amended) The method of claim 8, wherein the soluble BCMA polypeptide comprises:
 - (a) a portion of the amino acid sequence of SEQ ID NO:1; or
 - (b) an amino acid sequence encoded by a nucleic acid that is at least 60 nucleotides long and hybridizes to the nucleic acid encoding (a) under defined conditions;

wherein the polypeptide is capable of specifically binding APRIL or BAFF, or both.

14. The method of claim 13, wherein the defined conditions comprise pretreating for 8 hours at 65°C in a solution comprising 6 x SSC, 50 mM Tris-HCl (pH 7.5), 1 mM EDTA, 0.02% PVP, 0.02% Ficoll, 0.02% BSA, and 500 µg/ml denatured salmon sperm DNA; hybridizing for 48 hours at 65°C; and washing for 1 hour at 37°C in a solution comprising 2 x SSC, 0.01% PVP, 0.01% Ficoll, and 0.01% BSA and for 45 minutes at 50°C in a solution comprising 0.1 x SSC.

15. The method of claim 8, wherein the polypeptide further comprises a Fc fragment of IgG1 or a Fc fragment of IgG4.

16. A method for identifying a compound effective for treatment of a neurodegenerative immunological disorder, the method comprising:

- (a) preparing a first binding mixture comprising the polypeptide as in claim 8 and a BCMA ligand;
- (b) measuring the amount of binding between the polypeptide and the BCMA ligand in the first mixture;
- (c) preparing a second binding mixture comprising the polypeptide and the BCMA ligand;
- (d) measuring the amount of binding between the polypeptide and the BCMA ligand in the second mixture; wherein difference in the amount of binding measured in (b) and (d) above a predetermined threshold is indicative of the test compound being effective for treatment of a neurodegenerative immunological disorder;

- (e) testing the compound identified in (d) in at least one animal model of multiple sclerosis.

17. (Currently Amended) A method of treating a subject ~~in need for treatment~~ ~~of in need of treatment for~~ multiple sclerosis, the method comprising administering soluble BCMA to the subject in an amount and for a period of time sufficient to delay onset of acute phase of the disease.

18. (Currently Amended) A method of treating a subject ~~in need for treatment~~ ~~of in need of treatment for~~ multiple sclerosis, the method comprising administering soluble BCMA to the subject in an amount and for a period of time sufficient to reduce rate of relapses.

19. (Currently Amended) The method of claim 17 or 18, wherein the soluble BCMA comprises an ~~amino acid sequence as set out in SEQ ID NO:3 from amino acid 24 to amino acid 74~~ amino acids 24-74 of SEQ ID NO:3.

20. The method of claim 19, wherein the soluble BCMA further comprises an Fc region of human Ig.

21 - 23. Cancelled.